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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,706	10/23/2003	Theodore J. Copperthite	M-15261 US	9787

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EXAMINER

EDMONDSON, LYNNE RENEE

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/692,706	<b>Applicant(s)</b> COPPERTHITE ET AL.	
	<b>Examiner</b> Lynne Edmondson	<b>Art Unit</b> 1725	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 18-27 is/are allowed.
- 6) ☒ Claim(s) 1-7,9 is/are rejected.
- 7) ☒ Claim(s) 10-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Davidson (USPN 5364004).

Davidson teaches a bond tool for attaching a wire to a bond comprising a guide portion (44), a grooving portion (38), and a staking portion (36) for ultrasonic wire bonding (figures 3 and 4 and col 4 lines 32-59).

3. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Killingsworth et al. (USPN 3627192).

Killingsworth teaches a bond tool for attaching a wire to a bond comprising a guide portion (23), a V-shaped grooving portion (18), and a V-shaped staking portion (20). As shown in figure 8, the staking portion has a shallower V-shape than the guide portion. Wires are bonded by ultrasonic energy and pressure (figures 3 and 4 and col 2 lines 5-61). It is noted that the type of wire bonded does not further limit the apparatus.

4. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Eltzroth et al. (USPN 3689983).

Eltzroth teaches a bond tool for attaching a wire to a bond comprising a guide portion (44), a V-shaped grooving portion (39), and a V-shaped staking portion (42). As shown in figure 4, the staking portion has a shallower V-shape than the guide portion. Al filament wires are bonded by ultrasonic energy and pressure (figures 3 and 4 col 1 lines 1-5, col 1 lines 24-40 and col 3 lines 14-55).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lo et al. (USPN 5626276) in view of Killingsworth et al. (USPN 3627192).

Lo teaches a bond tool for attaching a wire to a bond comprising a rotatable spool, arm and pulley assembly, a bond tool and a clamp between the pulley and bond tool (figures 1, 5, 8, col 4 lines 40-47 and col 8 line 30 – col 9 line 29). However the tool is not further disclosed.

Eltzroth teaches a bond tool for attaching a wire to a bond comprising a guide portion (44), a V-shaped grooving portion (39), and a V-shaped staking portion (42). As shown in figure 4, the staking portion has a shallower V-shape than the guide portion. Al filament wires are bonded by ultrasonic energy and pressure (figures 3 and 4 col 1 lines 1-5, col 1 lines 24-40 and col 3 lines 14-55).

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It would have been obvious to one of ordinary skill in the art at the time of the invention to employ a tool with a grooving and staking portion to ensure strong, reliable bonds, which will not peel away.

### ***Response to Arguments***

7. In response to applicant's argument that Eltzroth does not teach a grooving step, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

8. Eltzroth teaches a bond with a groove (52) in figure 2.

9. Therefore the 102 rejection of claims 1-6 as anticipated by Eltzroth stands.

### ***Allowable Subject Matter***

10. Claims 18-27 are allowed.

11. Claims 10-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Farassat (USPN 6905058 B2), Reber (USPN 3347422),

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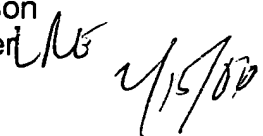
Sakamoto et al. (USPN 3750926), Grasso et al. (USPN 5516029), DiStefano et al. (USPN 5868301) and Linn (USPN 5816472).

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (571) 272-1172. The examiner can normally be reached on Monday through Thursday from 6:30 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lynne Edmondson  
Primary Examiner  
Art Unit 1725



LRE